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REMARKS/ARGUMENTS

This is in response to the official action dated October 16, 2007. Reconsideration is respectfully requested.

Claims 1–9 are pending in the application. Claim 1 has been amended. New claims 10–14 have been added. Claims 1–14 remain in the application.

Specification

The Specification was objected to because essential material was incorporated by reference to a foreign application or patent. Paragraphs **[0003] – [0005]** of the Specification have been amended to replace the reference to the German-language patent application DE 101 13 880.6 with a reference to US Patent 7,130,347 and the reference to the German-language application DE 101 52 612.1 with a reference to US published application 2004/0109609. Applicant's representative affirms herewith that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter.

Paragraphs **[0007]**, **[0014]** and **[0020]** have been amended to correct typographical errors.

Claim rejections under 35 USC § 112

Claims 3-9 stand under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

Regarding **claim 3**, the expression "texture" is a common expression in computer science and describes a bitmap image applied to a surface in computer graphics; see, for example, http://en.wikipedia.org/wiki/Texture_%28computer_graphics%29 and http://foldoc.org/index.cgi?query=texture&action=Search.

More specifically, "texture" is a measure of the variation of the intensity of a surface, quantifying properties such as smoothness, coarseness and regularity. It is often used as a region descriptor in image analysis and computer vision. The three principal approaches used to describe texture are statistical, structural and spectral. Statistical techniques characterize texture by the statistical properties of the grey levels of the points comprising a surface. Typically, these properties are computed from the grey level histogram or grey level co-occurrence matrix of the surface. Structural techniques characterize texture as being composed of simple primitives called "texels"

(texture elements), that are regularly arranged on a surface according to some rules. (http://www.definethat.com/define/7016.htm). Therefore, by definition, "texture" in an image has a low priority for transmission and the textured areas can be use to transmit additional information, as is done in the present invention.

Regarding **claim 4**, it is well known in the art to transmit information in compressed form no matter what kind of known data compression method is used.

Regarding **claim 5**, a document format includes characteristic parameters of a document. For example, an html document is characterized by its Internet Media Type (MIME-Type). There are different standardized MIMI types, for example text, image, video, audio, application, etc, (see, for example, http://en.wikipedia.org/wiki/internet_media type).

Regarding **claim 6**, in information technology, header refers to the portion of a packet, preceding the actual data, containing source and destination addresses, error checking and other fields. These are supplemental data placed at the beginning of a block of data being stored or transmitted which contains information (fields) for the handling of the data block. This is well known in the art. In graphics data formats, the header might give information about the image size, resolution, number of colors, and the like.

Regarding **claim 7**, there may be priorities assigned to the additional information. The priorities may be assigned by methods of prioritized pixel transmission, as disclosed in the referenced patent documents, such as US Patent 7,130,347, which recites a method for compressing and decompressing video data in accordance with a priority array, or US 2004/0109609 which discloses assigning priorities based on pixel value differences. Prioritized pixel transmission is described in paragraphs **[0003]** and **[0005]** of the originally filed application.

Regarding **claim 8**, the additional information is transmitted in descending order of its priority, with priorities assigned as discussed above with reference to claims 6 and 7. This feature is an essential part of the method of prioritized pixel transmission described in the US patent and patent application incorporated by reference.

Regarding **claim 9**, the additional information has position values different from the image data, so it can be distinguished from the image data by its specific position values.

Withdrawal of the rejection of claims 3–9 under 35 U.S.C. §112 is respectfully requested.

Claim rejections under 35 USC § 102

Claims 1, 2, 5, and 7-9 stand rejected under 35 USC § 102(e) as being anticipated by Christopoulos et al. ("Christopoulos"; US 6,961,754 B2).

Claim 1, as amended herein, recites a method for transmitting additional information when using a method for compressing data by way of a prioritizing pixel transmission. The compressed data are formed of individual pixel groups, with each pixel group having a position value within an image array and at least one pixel value. A minimal size of the image array is defined by a height *h* and a width *b* of an image, expressed in pixels, and the data and the additional information are transmitted, wherein the additional information is placed at position values that do not occur in the data, and is located instead outside an area of the image array. Newly added claim 10 recites a method for transmitting image data and additional information by prioritized transmission of compressed image data, with the steps of defining a minimal size of an image array by a height *h* and a width *b*, expressed in pixels, arranging the image data in pixel groups, with each pixel group having a commonly assigned prioritization level and a position value within the image array and at least one pixel value, arranging the additional information at position values of the image array that are not assigned to the pixel groups, compressing the image array containing both the image data of the pixel groups and the additional information, and transmitting the compressed image array by prioritized transmission from a transmitter to a receiver.

According to one aspect of the invention, the transmission of pixel data of images is prioritized by grouping pixels having the same priority and by transmitting additional information advantageously as image data in the form of textures which by definition have a lower priority. The pixel groups and the additional information can be transmitted as part of the image array within the same transmission channel and can be easily identified by the receiver. Importantly, the additional information, although identified as such, is transmitted as part of an image array and not as a separate data stream.

Conversely, Christopoulos discloses selecting and prioritizing Regions-of-Interest (ROI) in

images (for example, when using MPEG-7 or JPEG2000) and allowing interactive access, manipulation, sharing, and exchange of multimedia data by storing descriptive information about the stored multimedia objects (such as MPEG descriptions for video and JPEG descriptions for still images) in a block labeled "CONTENT DESCRIPTIONS." (col. 7, line 46, to col. 8, line 29).

Further discloses that "the compressed data, along with the significance value associated with each of the selected ROIs, and the information and/or data that defines the capabilities of terminal B are multiplexed into a bitstream, where the significance values and the terminal B capability information may be included as metadata, as for example, in the MPEG-7 standard. In step 604, the bitstream is transmitted to the transcoder." (col. 12, lines 60-67). (emphasis added)

As defined in Foldoc, *Online Dictionary of Computing* (http://foldoc.org/?query=multiplex), multiplexing involves "combining several signals for transmission on some shared medium (e.g. a telephone wire). The signals are combined at the transmitter by a multiplexor (a "mux") and split up at the receiver by a demultiplexor. The communications channel may be shared between the independent signals."

As clearly seen, the approach taken in the present invention is entirely different from that disclosed by Christopoulos. Whereas Christopoulos transmits a datastream containing two separate components, namely the image data and the metadata, only data of an (expanded) image array are transmitted with the method of the present invention, as recited in amended claim 1 and new claim 10.

Claims 1 and 10 are therefore not anticipated by Christopoulos. Claims 2, 5, and 7-9 share the presumed patentable features of claim 1 and are therefore also patentable for at least the reasons that claim 1 is patentable. Likewise, newly added claims 11-14 share the presumed patentable features of claim 10 and are therefore also patentable for at least the reasons that claim 10 is patentable.

Claim rejections under 35 USC § 103

Claims 3 and 4 stand rejected under 35 USC § 103(a) as being unpatenable over Christopoulos in view of Xie et al. ("Xie").

Xie attempts to compress metadata which describe, for example, image information texture, without losing too much information in the compression. However, the instant application is directed to a particular innovative way for transmitting additional information in addition to pixel data by using an area of the image array not used for actual data, e.g., an area lying outside the image array. Even if the metadata described by Xie were incorporated in Christopoulos metadata, this would still not cure the deficiency in Christopoulos' approach, namely that the metadata are not part of a transmitted image array, but are instead multiplexed on the image data stream. This is entirely different from the present invention, are discussed *supra.*

Claim 6 stand rejected under 35 USC § 103(a) as being unpatenable over Christopoulos in view of Suzuki et al. ("Suzuki"; US 6,097,842). Suzuki addresses header formats for MPEG encoding, but fails, like Christopoulos and Xie, to disclose the features recited in claims 1 and 10.

Applicant therefore submits that all claims are patentable over the art of record.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

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ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,
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